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SPS224G4

Service Provider focused metro access solution suited for MTU/MDU applications

Linksys Service Provider (SPS) switches deliver cost-effective Metro Ethernet Access solutions. These products are optimized for Multi-tenant Units (MTU) and Multi-Dwelling Units (MDU) where Triple Play (VoIP, Video, and Data) services are delivered by the Service Provider to multiple businesses or homes in close proximity.

The Linksys SPS224G4 Managed Switch makes it ideal for environments where security and uptime are important. It offers four gigabit copper ports and 2 shared pluggable SFP modules for optional optical interfaces for connecting to the core network.

The SPS switches facilitate the delivery of multiple services over a layer 2 network with support for Q-in-Q. This allows customer VLANs to be kept separate across the Service Provider backbone. Also, for efficient delivery of multicast traffic (like Video) to multiple customers, these switches provide support for a variation of MVR (Multicast VLAN Registration).

Network security is a primary concern for Service Providers, and the SPS family of switches deliver a number of advanced features that alleviates this concern. Support for Dynamic ARP Inspection eliminates the man-in-the-middle attack. IP Source Guard prevents a subscriber (or malicious user) from using an IP address not assigned to them. DHCP Guard eliminates rogue devices from behaving as a DHCP server. STP Root Guard prevents a rogue spanning tree device from advertising that it should be the root bridge thereby having the Spanning Tree network compromised by an outside device. Unauthorized access to the network is protected through 802.1X port and multi-session authentication and MAC Filtering/Port Security. 802.1X requires client to authenticate themselves before the port will pass data. An additional security feature is Access Control Lists (ACLs) which restrict network use to certain users, groups, or applications. Also, the SPS switches secure Management traffic with support for SSH, SSL, and SNMPv3.

The Management capabilities of the SPS switches include support for DHCP Option 82, allowing for assignment of IP addresses to subscribers on the basis of where they connect to the network. Configuration of the switches can be performed through a Graphical User Interface or through a Command Line Interface (CLI). The Switches also support SNMP for management from a Network Management station.

- Solution optimized for Triple Play MTU/MDU Metro Access deployments by Service Providers
- Feature set for delivery of Services with support for Q-in-Q and Multicast VLAN
- Strong security feature set includes support for IP Source Guard, Dynamic ARP Inspection, STP Root Guard, DHCP Guard, and per-session 802.1X support
- Management features include support for DHCP Option 82, CLI, and Intuitive Web GUI

PRODUCT DATA

BUSINESS SERIES

24-Port 10/100 + 4-Port Gigabit SP Switch

Model: SPS224G4

Features

- 24 - 10/100 Switched RJ-45 ports deliver up to 200 Mbps of throughput per port
- 4 - 10/100/1000 Switched RJ-45 Ports
- 2 - MiniGBIC slots delivering up to 1000 Mbps
- 12.8 Gbps non-blocking, store-and-forward switching mechanism.
- Simplified QoS management enabled by advanced queuing techniques using 802.1p, Diffserv or ToS traffic prioritization specifications
- Configuration and monitoring from a console port with CLI or a standard web browser with WebView management
- Secure remote management of the switch via SSH and SSL secure channel network protocols
- 802.1Q based VLANs enable segmentation of networks for improved performance and security
- Stacking Q-in-Q VLAN allows customer VLANs transparently crossing a Service Provider network and isolating traffic among customers
- Private VLAN Edge for simplified network isolation for guests connections or autonomous networks
- Automatic configuration of VLANs across multiple switches through GVRP/GARP
- Automatic MDI/MDIX detection support

PRODUCT DATA

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24-Port 10/100 + 4-Port Gigabit SP Switch

Specifications

Model	SRW224G4
Ports	24 RJ-45 Connectors for 10BASE-T and 100BASE-TX, 4 RJ-45 Connectors for 10BASE-T/100BASE-TX/1000BASE-T with 2 Shared SFP Ports Auto MDI/MDI-X Autonegotiate/Manual Setting
Cabling Type	UTP CAT5 or Better for 10BASE-T/100BASE-TX, UTP CAT5e or Better for 1000BASE-T
LEDs	10/100 Link/Act, Giga Link/Act, Speed, MiniGBIC Link/Act, Speed, System

Performance

Switching Capacity	12.8 Gbps, Non-Blocking
Forwarding Rate	9.5 Mpps Wire-Speed Performance

Layer 2

MAC table size	8K
Number of VLANs	256 Active VLANs (4096 range)
VLAN	Port-Based and 802.1Q Tag-Based VLANs Q-in-Q Stacking VLAN Private VLAN Edge (PVE)
Dynamic VLAN	GVRP - Dynamic VLAN Registration Management VLAN
HOL Blocking	Head of Line Blocking Prevention
MVR	Multicast VLAN Registration Implementation also known as Multicast TV VLAN

Management

Web User Interface	Built-in Web UI for Easy Browser-Based Configuration (HTTP/HTTPS)
SNMP	SNMP Version 1, 2c, 3 with Support for Traps
SNMP MIBs	RFC1213 MIB-2, RFC2863 Interface MIB, RFC2665 Ether-like MIB, RFC1493 Bridge MIB, RFC2674 Extended Bridge MIB (P-bridge, Q-bridge), RFC2819 RMON MIB (groups 1,2,3,9 only), RFC2737 Entity MIB, RFC 2618 RADIUS Client MIB RFC 1215 Traps
RMON	Embedded Remote Monitoring (RMON) software agent supports four RMON groups (history, statistics, alarms, and events) for enhanced traffic management, monitoring, and analysis
Firmware Upgrade	CLI upgrade and Web Browser upgrade (HTTP) and TFTP
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe
Other Management	Traceroute Secure Socket Layer (SSL) Secure Shell (SSH) RADIUS Port Mirroring TFTP Upgrade SSL Security for Web UI Management Access List for IP Address DHCP Client BootP SNTP Xmodem Upgrade Cable Diagnostics PING Telnet Client (SSH Secure Support)

Security

IEEE 802.1X	802.1X - RADIUS Authentication. MD5 Encryption 802.1X Multiple Sessions Authentications on per Host Basis 802.1X Guest VLAN
Access Control	ACLs - Drop or Rate Limit based on: Source and Destination MAC-Based Source and Destination IP Address Protocol TOS/DSCP Port VLAN Ethertype

- User/Network port level security via 802.1X authentication and MAC-based filtering
- 802.1X multiple sessions mode enhances 802.1X authentication on per host basis
- Increased the bandwidth (up to 8x) and added link redundancy with Link Aggregation Control Protocol (LACP)
- Enhanced rate limiting capabilities provide control, including back pressure to control the rate that data can flow in and out of a port
- DHCP snooping prevents rogue devices from acting as the DHCP server and ensuring the integrity of Port, MAC, and IP address
- Multicasting, broadcasting and flood control
- Port mirroring for non-invasive monitoring of switch traffic
- Jumbo frame support - up to 1632 bytes
- SNMP v1, v2c, v3
- Fully rack-mountable using the included rack-mounting hardware

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Linksys products are available in more than 50 countries, supported by 12 Linksys Regional Offices throughout the world. For a complete list of local Linksys Sales and Technical Support contacts, visit our worldwide website at www.linksys.com

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Access Security	DHCP Snooping IP Source Guard Dynamic ARP Inspection L2 DHCP Relay and Option 82 STP Root Guard MAC-Based Port Security

Availability

Link Aggregation	Link Aggregation using IEEE 802.3ad LACP Up to 8 Ports in up to 8 Trunks
Storm Control	Broadcast, Multicast, and Unknown Unicast
Spanning Tree	IEEE 802.1D Spanning Tree, IEEE 802.1w Rapid Spanning Tree, IEEE 802.1s Multiple Spanning Tree, STP Root Guard
IGMP Snooping	IGMP (v1/v2) snooping provides for fast client joins and leaves of multicast streams and limits bandwidth-intensive video traffic to only the requestors. Support 256 multicast groups.

QoS

Priority levels	4 Hardware Queues
Scheduling	Priority Queueing and Weighted Round Robin (WRR)
Class of Service	Port-Based 802.1p VLAN priority based IP TOS/DSCP based IPv4 & IPv6 Traffic Class based COS MAC Address port security VLAN ID MAC Address IP Address Subnet Mask Service Type Protocol Diffserv TCP/UDP Port
Rate Limiting	Ingress Policer, Egress Shaper
Standards	802.3 10BASE-T Ethernet, 802.3u 100BASE-TX Fast Ethernet, 802.3ab 1000BASE-T Gigabit Ethernet, 802.3z Gigabit Ethernet, 802.3x Flow Control, 802.3 ad LACP, 802.1D STP, 802.1Q/p VLAN, 802.1w Rapid STP, 802.1s Multiple STP, 802.1X Port Access Authentication

Environmental

Dimensions	16.93" x 1.75" x 7.97" (430 x 44.45 x 202.5 mm)
Weight	4.41 lb (2 kg)
Power	Internal Switching Power
Certification	FCC Part15 Class A, CE Class A, UL, cUL, CE Mark, CB
Operating Temp.	32 to 104˚F (0 to 40˚C)
Storage Temp.	-4 to 158˚F (-20 to 70˚C)
Operating Humidity	10 to 90%
Storage Humidity	10 to 95%

Package Contents

- One SPS224G4 with 24 10BASE-T/100BASE-TX, 4 1000 BASE-T with RJ-45, and 2 Shared Gigabit MiniGBIC
- Power Cord
- Two Rack Mounting Kits/Eight Screws
- One CD with User Guide in PDF Format
- One Registration Card
- Console Cable

Minimum Requirements

- Web-Based Utility: Web Browser- Microsoft Internet Explorer (Version 5.5 or Above) or Mozilla Firefox (Version 2.0.0.1)
- CAT5 Ethernet Network Cable

Check the product package and contents for specific features supported. Specifications are subject to change without notice.

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